

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
26 October 2006 (26.10.2006)

PCT

(10) International Publication Number
WO 2006/111925 A2

(51) International Patent Classification:
A61K 39/395 (2006.01)

(21) International Application Number:
PCT/IB2006/051199

(22) International Filing Date: 18 April 2006 (18.04.2006)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
60/672,900 18 April 2005 (18.04.2005) US

(71) Applicant (*for all designated States except US*):
SLOAN-KETTERING INSTITUTE FOR CAN-
CER RESEARCH [US/US]; 1275 York Avenue, New
York, NY 10021 (US).

(72) Inventor; and

(75) Inventor/Applicant (*for US only*): GIANCOTTI, Fil-
ippo G. [US/US]; c/o Office of Industrial Affairs, Memo-
rial Sloan-Kettering Cancer Center, 1275 York Avenue,
New York, NY 10021 (US).

(74) Agent: LARSON, Marina, T; Marina Larson & Asso-
ciates, LLC, PO Box 4928, Dillon, Colorado 80435 (US).

(81) Designated States (*unless otherwise indicated, for every
kind of national protection available*): AE, AG, AL, AM,
AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN,
CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI,
GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE,
KG, KM, KN, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV,
LY, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI,
NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG,
SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US,
UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Designated States (*unless otherwise indicated, for every
kind of regional protection available*): ARIPO (BW, GH,
GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM,
ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM),
European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI,
FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT,
RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA,
GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

— *without international search report and to be republished
upon receipt of that report*

*For two-letter codes and other abbreviations, refer to the "Guid-
ance Notes on Codes and Abbreviations" appearing at the begin-
ning of each regular issue of the PCT Gazette.*

(54) Title: INHIBITION OF TUMORIGENESIS BY INHIBITION OF A6B4 INTEGRIN

(57) Abstract: Inhibitors of a6b4 integrin that target beta 4 are used as therapeutic agents to inhibit tumorigensis in individuals, including humans, of tumors that express a6b4 integrin. The therapeutic agent may be an antibody or a small molecule, for example a laminin-5 analog, which binds to a6b4 integrin and inhibits its normal function. The therapeutic agent may also be a chemical species that interferes with the production of beta 4, including for example an antisense or RNAi species. The therapeutic agent is administered to the tissue or patient in a therapeutically effective amount. The therapeutic agent may be used as a single agent or in combination with other therapies, especially those directed toward suppressing the activity of RPTKs known to cooperate with a6b4, including but not limited to ErbB2, EGF-R, Met, and Ron.



WO 2006/111925 A2

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
26 October 2006 (26.10.2006)

PCT

(10) International Publication Number
WO 2006/111925 A3

(51) International Patent Classification:

A61K 39/395 (2006.01) A01N 43/04 (2006.01)
A61K 31/70 (2006.01)

(21) International Application Number:

PCT/IB2006/051199

(22) International Filing Date: 18 April 2006 (18.04.2006)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

60/672,900 18 April 2005 (18.04.2005) US

(71) Applicant (for all designated States except US):

SLOAN-KETTERING INSTITUTE FOR CAN-
CER RESEARCH [US/US]; 1275 York Avenue, New
York, NY 10021 (US).

(72) Inventor; and

(75) Inventor/Applicant (for US only): GIANCOTTI, Fil-
ippo G. [US/US]; c/o Office of Industrial Affairs, Memo-
rial Sloan-Kettering Cancer Center, 1275 York Avenue,
New York, NY 10021 (US).

(74) Agent: LARSON, Marina, T; Marina Larson & Asso-
ciates, LLC, PO Box 4928, Dillon, Colorado 80435 (US).

(81) Designated States (unless otherwise indicated, for every

kind of national protection available): AE, AG, AL, AM,
AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN,
CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI,
GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE,
KG, KM, KN, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV,
LY, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI,
NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG,
SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US,
UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Designated States (unless otherwise indicated, for every

kind of regional protection available): ARIPO (BW, GH,
GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM,
ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM),
European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI,
FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT,
RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA,
GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

— with international search report

(88) Date of publication of the International search report:

8 March 2007

For two-letter codes and other abbreviations, refer to the "Guid-
ance Notes on Codes and Abbreviations" appearing at the begin-
ning of each regular issue of the PCT Gazette.

(54) Title: INHIBITION OF TUMORIGENESIS BY INHIBITION OF A6B4 INTEGRIN

(57) Abstract: Inhibitors of a6b4 integrin that target beta 4 are used as therapeutic agents to inhibit tumorigenesis in individuals, including humans, of tumors that express a6b4 integrin. The therapeutic agent may be an antibody or a small molecule, for example a laminin-5 analog, which binds to a6b4 integrin and inhibits its normal function. The therapeutic agent may also be a chemical species that interferes with the production of beta 4, including for example an antisense or RNAi species. The therapeutic agent is administered to the tissue or patient in a therapeutically effective amount. The therapeutic agent may be used as a single agent or in combination with other therapies, especially those directed toward suppressing the activity of RPTKs known to cooperate with a6b4, including but not limited to ErbB2, EGF-R, Met, and Ron.



WO 2006/111925 A3